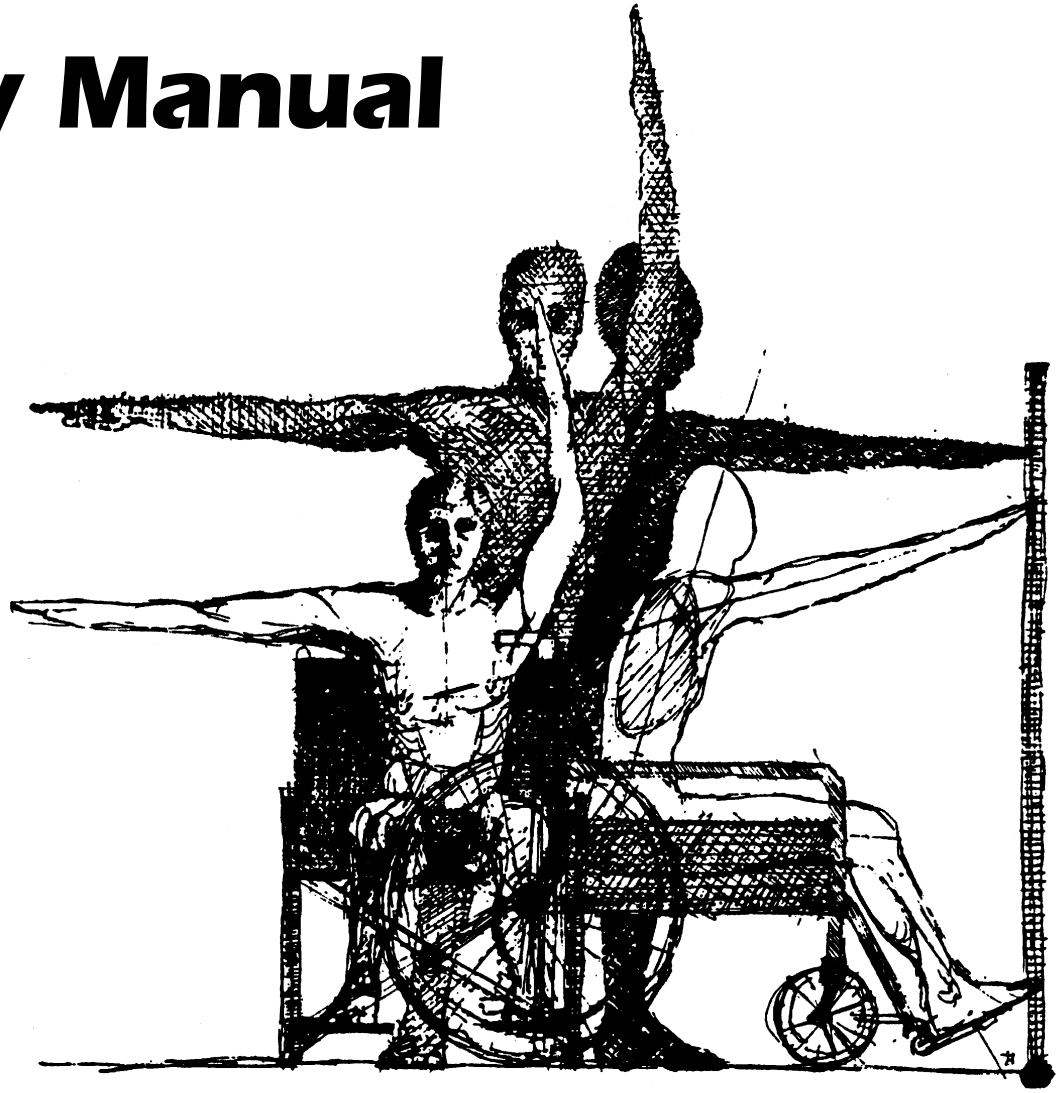
Accessibility Manual



Prepared by:
City of San Antonio
Disability Access Office
Planning Department
Revised June 2001

This manual has been developed by the City of San Antonio, Disability Access Office, Planning Department, as a guide and reference on new construction and remodeling jobs requiring Accessible/Universal design.

Many small jobs, such as electrical outlets, stair work, and door changes will continue to be done without formal design. Maintenance crews will need to be aware of accessibility requirements in order to carry out these typical jobs. It should be remembered that these guidelines are the bare essentials of a barriers elimination program. The Disability Access Office and the Building Inspections Department will continue to consult on questions regarding design details.

The Design Standards presented herein are those related to Texas laws referring to the elimination of architectural barriers. The primary reference for this text is the Texas Accessibility Standards (T.A.S.) in accordance with Architectural Barriers Act (Art. 9102, Texas Civil Statutes) and administered by the Texas Department of Licensing and Regulation (T.D.L.R.) (www.license.state.tx.us/ab/ab.htm). These standards conform to the design guidelines of the Americans with Disabilities Act. (A.D.A.). The preparation of this manual was financed in part through the U.S. Department of Housing and Urban Development, Community Development Block Grant program.

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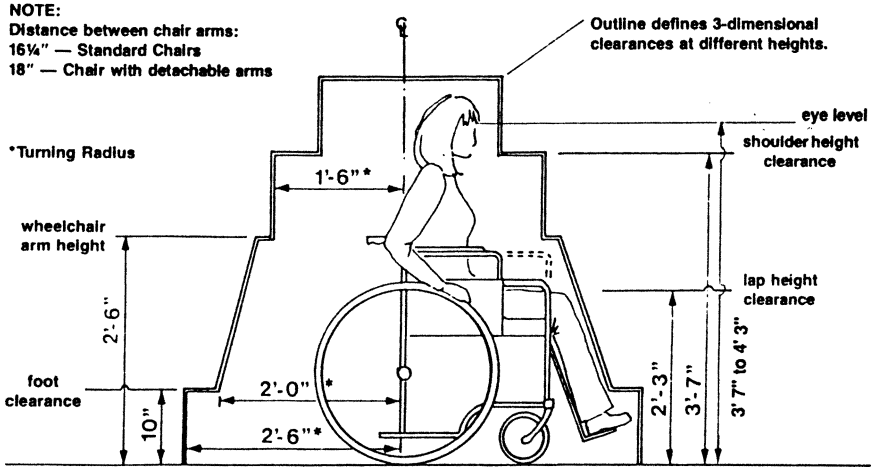
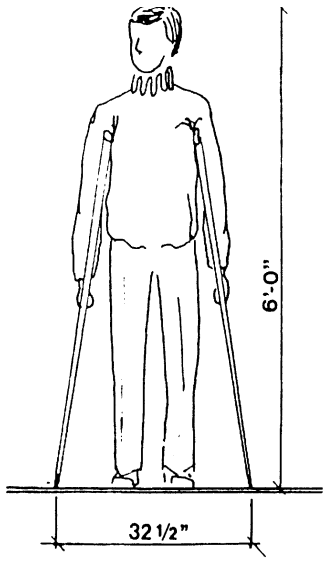
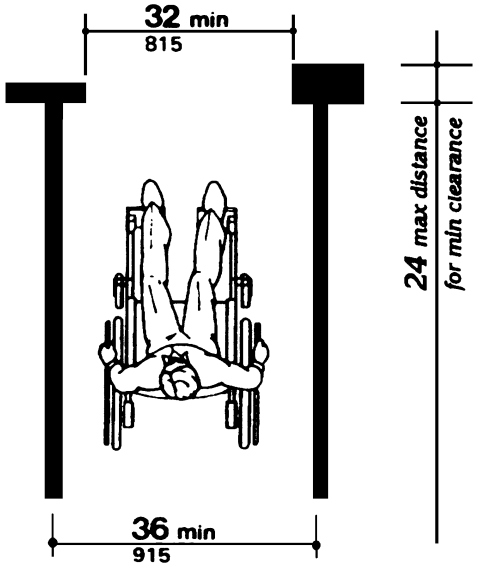
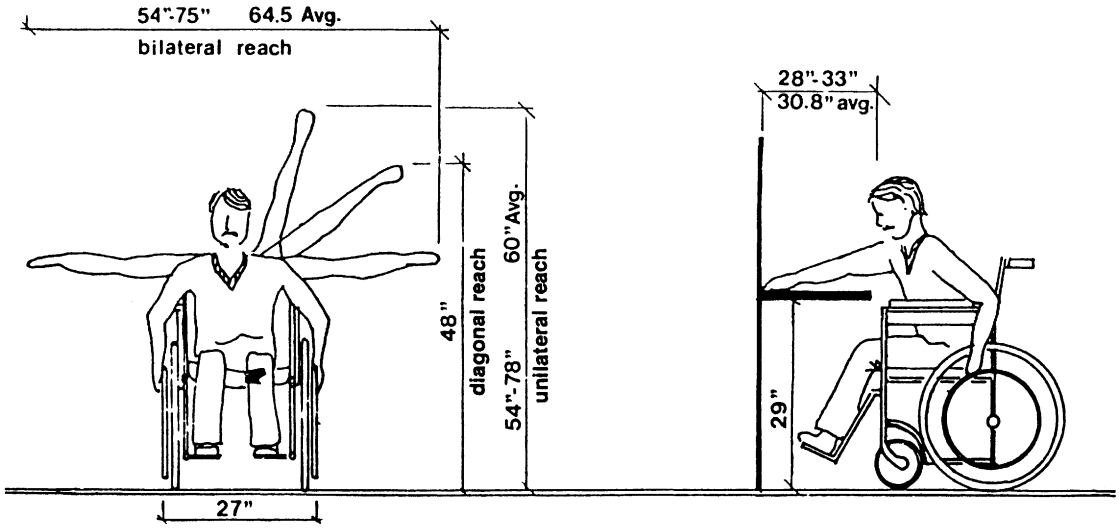
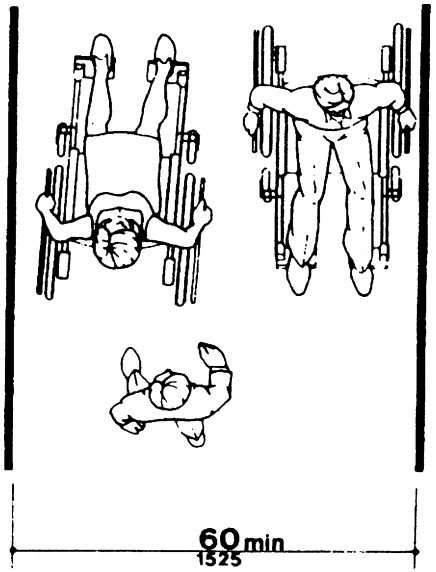




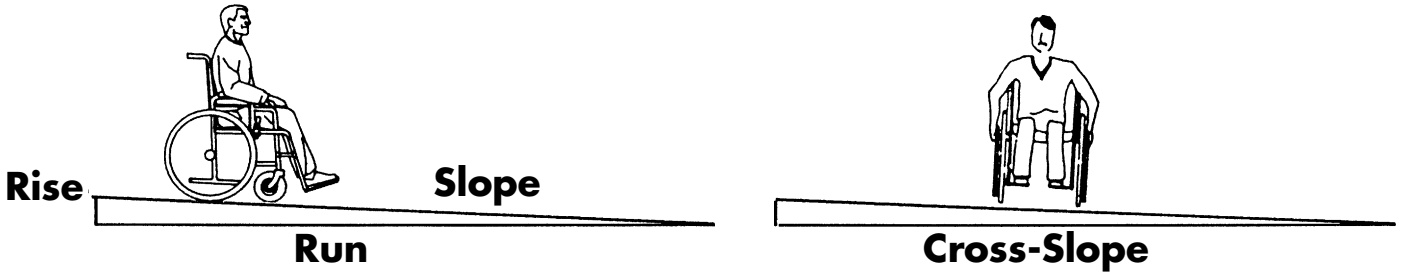


Minimum Clear Width for Single Wheelchair

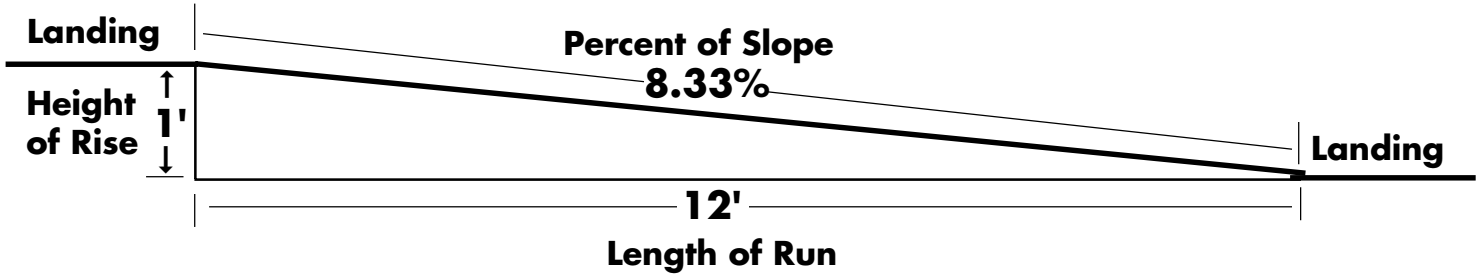




Minimum Clear Width for Two Wheelchairs

ITEM	REQUIREMENT
ACCESSIBLE ROUTE	A continuous unobstructed path of travel that connects all accessible elements and spaces in a building or facility. An accessible route within the boundary of a site shall be provided from public transportation stops, accessible parking, passenger loading zones, and public streets or sidewalks to the accessible building entrance they serve.
SLOPE & CROSS-SLOPE	An accessible route with a running slope greater than 5% shall be considered a ramp. A slope of 5% has 1 inch of rise in elevation for any 20 inches of run, or length.
	Cross-slopes must not exceed 2%.
	
SURFACES	An accessible route must consist of a smooth, stable material with a non-slip textured surface.
SIDEWALKS	Preferred minimum unobstructed width 60 inches. When crossing driveways blend to a common level with a cross-slope not to exceed 2%.
GRATES	Elongated grate openings must be perpendicular to path of travel and openings must not exceed 1/2 inch in width.
CORRIDORS	Minimum unobstructed width of 44 inches (36 inches allowed for distances less than 30 feet).
PASSING SPACE	If an accessible route has less than 60 inches clear width, then passing spaces at least 60 inches by 60 inches shall be located at reasonable intervals not to exceed 200 feet. A "T" intersection of two corridors or walks is an acceptable passing space.

ITEM	REQUIREMENT
RAMPS	Any part of an accessible route with a slope greater than 5% (1:20) shall be considered a ramp. The least possible slope shall be used for any ramp.
RAMP SLOPE	The maximum slope of a ramp in new construction shall be 8.33% (1:12).



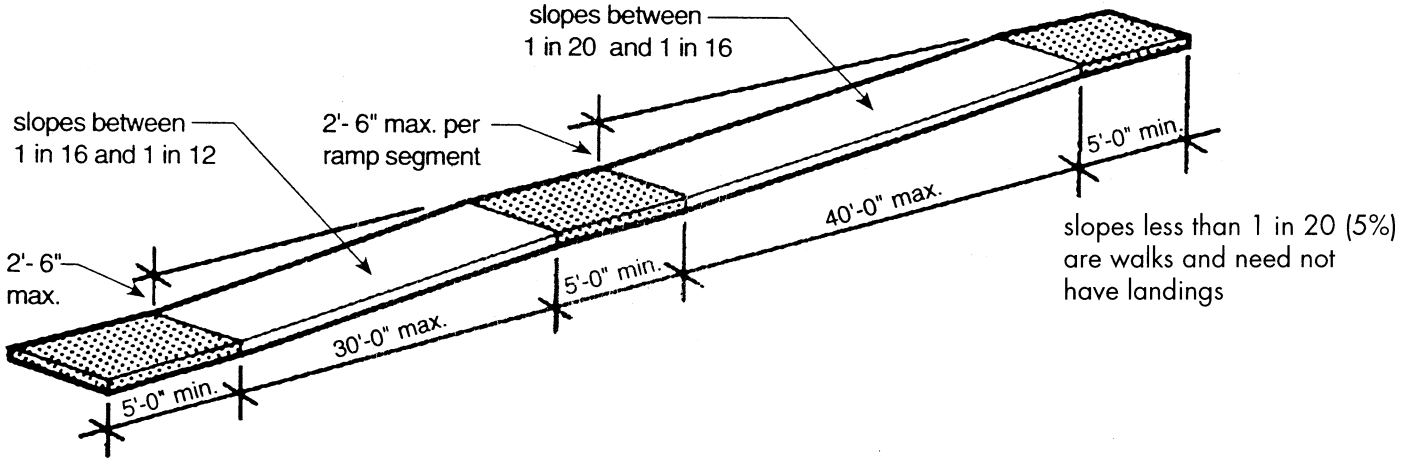
Ramps constructed on existing sites may have slopes in excess of 1 to 12 if space is limited.

The following chart applies:

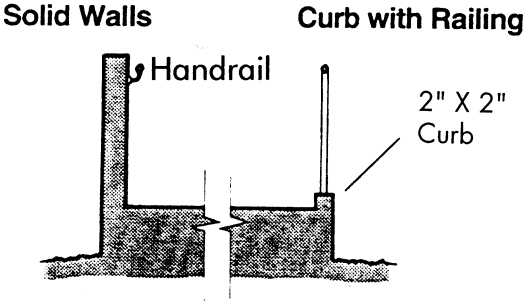
Maximum Rise	Allowable Slope
6 inches	Between 1:10 (10%) and 1:12 (8.33%)
3 inches	Between 1:8 (12.5%) and 1:10 (10%)
NOTE: Slopes greater than 1:8 (12.5%) are not allowed	

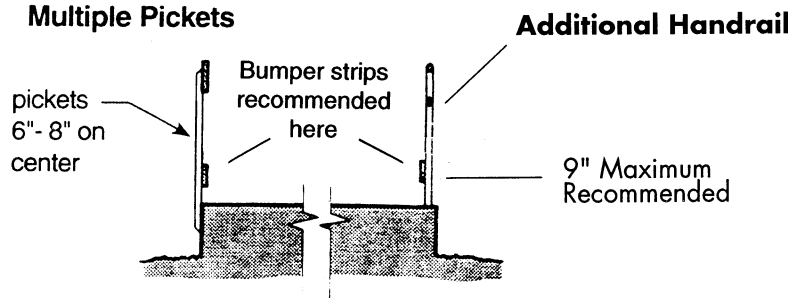
WIDTH	Ramps in excess of 30 feet overall length shall have a minimum unobstructed width of 44 inches. If less than 30 feet long a 36 inch minimum clear width is acceptable.

ITEM	REQUIREMENT
LANDINGS	Ramps shall have level landings at the top and bottom of each run. If ramps change direction at landings, the minimum landing size shall be 60" X 60". The maximum run (or length) for accessibility is illustrated below:



HANDRAILS	Any ramp with a run/horizontal projection greater than 72 inches shall have continuous 1.25 to 1.5 inch outside diameter handrails on both sides, mounted at between 34 and 38 inches above the ramp surface. Handrails shall extend 12 inches beyond the top and bottom of ramps, parallel to the landing surface with rounded, or returned ends. A 1.5 inch space is required between the rail and the wall if wall mounted.
EDGE PROTECTION	Ramps also require edge protection to prevent wheelchairs, crutches, canes or strollers from passing underneath the handrail. Various options for edge protection are illustrated below. A second set of handrails mounted at a height of 28" for children is recommended.* (See children's standards, p.13)

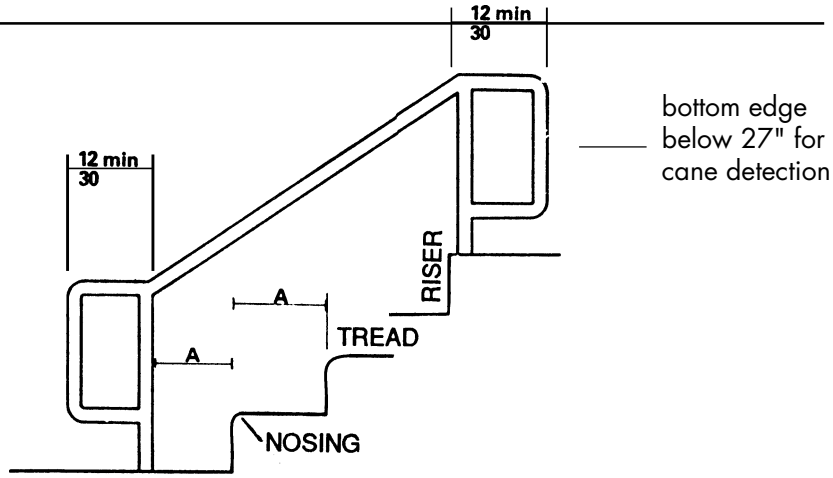




ITEM	REQUIREMENT

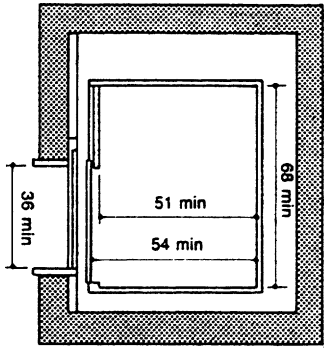
STAIRS

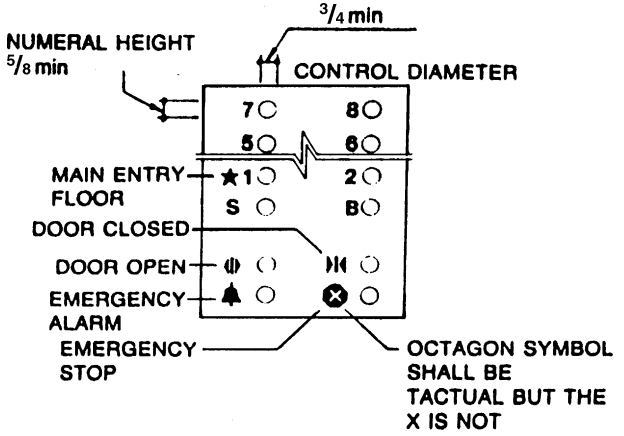
Uniformity of riser heights and tread depths provide safety for visually impaired persons.
Risers must be a maximum of 7 inches high.
Open risers are prohibited. Treads must be a minimum of 11 inches deep. Nosings are to be curved, not abrupt. Handrail must meet the same requirements as for ramps, with handrail extensions as illustrated.



ELEVATORS

Vertical access for wheelchairs in multi-storied buildings shall be provided by elevators. Elevators shall meet the minimum dimensional requirements illustrated below. Floor call signals shall be both visual and auditory.
Hall call buttons shall be centered at 42" above the floor.
Controls must be mounted between 35" and 54" above the floor.



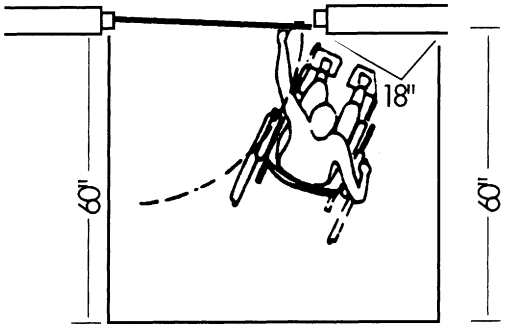


PLATFORM LIFTS

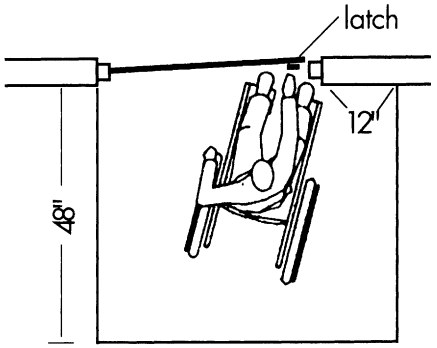
Platform lifts have been used successfully to provide vertical access in both interior and exterior remodeling applications where neither an elevator nor a ramp are technically feasible (TDLR variance required).
Platform lifts should facilitate users unassisted entry, operation, and exit.
Platform lifts shall meet the following dimensional requirements:

- Minimum clear floor area of 48 inches deep by 30 inches wide.
- Controls mounted between 28-48 inches above the platform floor.
- At least one handrail meeting standard accessibility requirements.

ITEM	REQUIREMENT
ENTRY DOORS	A level platform for maneuvering is required for the both sides of doorways. Eighteen inches of this level area must be extending past the handle-side of the door. If the door has both a latch and a closer, at least 12 inches of level area must be extending past the handle-side of the door on the push side of doorways. (Also applies to toliet stall doors.)
WIDTH	A 32 inch clear width opening is required for access. This requirement applies to one door, or at least one leaf of double doors.
THRESHOLDS (door sill)	Total level change at doorways shall not exceed .5 inch beveled. (A .75 inch beveled sill is allowed for exterior sliding doors.)
HARDWARE	Door handles shall have a shape that is easy to grasp with one hand. Preferred designs include lever-operated, push-type mechanisms, and U-shaped handles. The force required to operate is 5 lbf. or less. Mount hardware no higher than 48 inches.
KICKPLATES	Kickplates are recommended for the push-side of doors to protect the door from damage.
DOOR PRESSURE & WEIGHT	Adjust exterior door closer or otherwise reduce door pressure and weight as much as possible in order to minimize opening force required for persons with upper mobility limitations. Interior door opening force shall be no more than 5 lbf.



Pull



Push

ITEM	REQUIREMENT

NUMBER REQUIRED

If parking facilities exist, accessible parking spaces must be provided in conformance with the chart below:

Total Parking In Lot:	1-25	26-50	51-75	76-100	101-150	151-200	201-300	301-400	401-500	501-1000	Over 1000
Required Minimum Number of Spaces:	1	2	3	4	5	6	7	8	9	2% of total	20+1 for each 100 over 1000

PARKING SPACE DESIGN

At least one reserved space must be van accessible. (One of every eight reserved parking spaces for larger applications.)

figure one

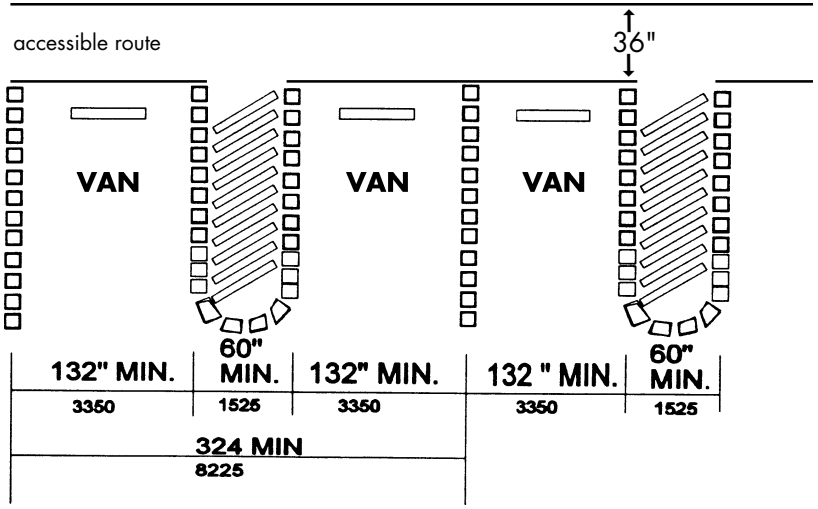
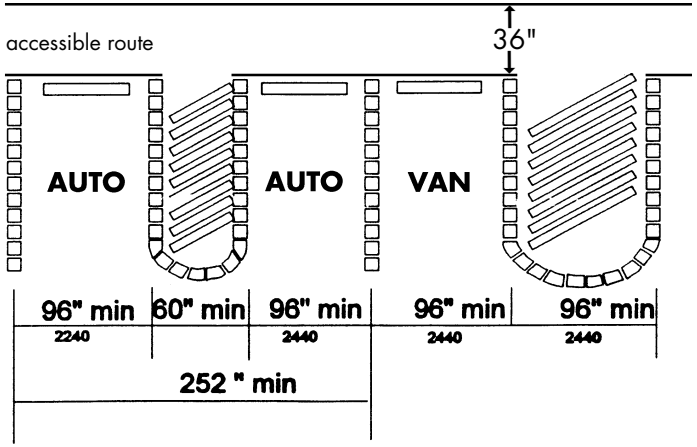


figure two

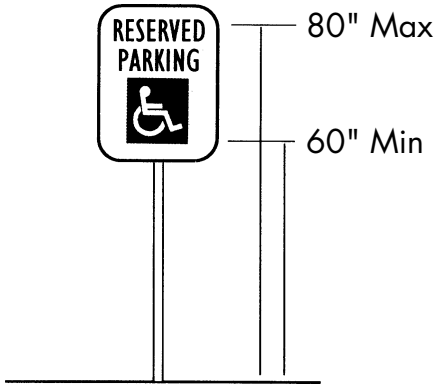


VERTICAL CLEARANCE

Provide minimum vertical clearance of 98"at van accessible spaces and accessible passenger loading zones. Parking garage minimum clearance shall be 114".

ITEM	REQUIREMENT
SIGNAGE	For proper use and enforcement of reserved parking for persons with disabilities, each parking space or area must be identified with a sign:

Sample Signs



Mounting Height

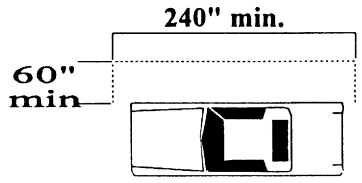
Parking space signage must;

1) be of a size that is readable and clear in stating reserved parking,
2) include the International Symbol of Access,
3) be permanently mounted in front of the vehicle space, not obstructing use of the curb ramp, and
4) be mounted at a height which will not be blocked by parked vehicles.

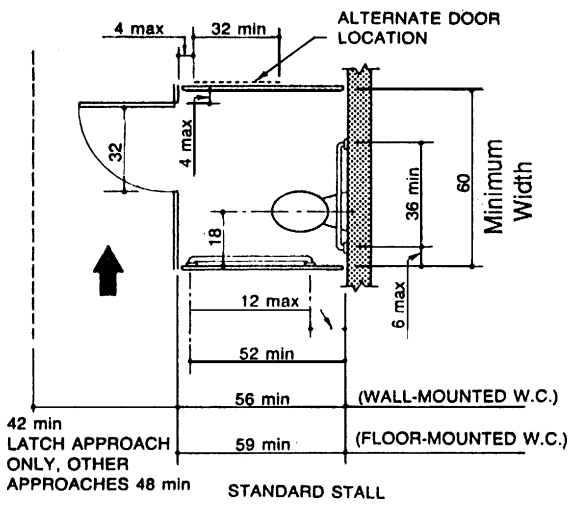
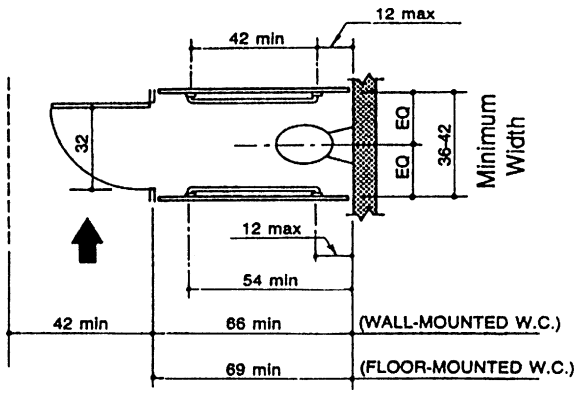
The van accessible space must be so designated with appropriate signage including the words “Van Accessible.” Parallel parking is not recommended for use by persons with disabilities.

PASSENGER LOADING ZONE

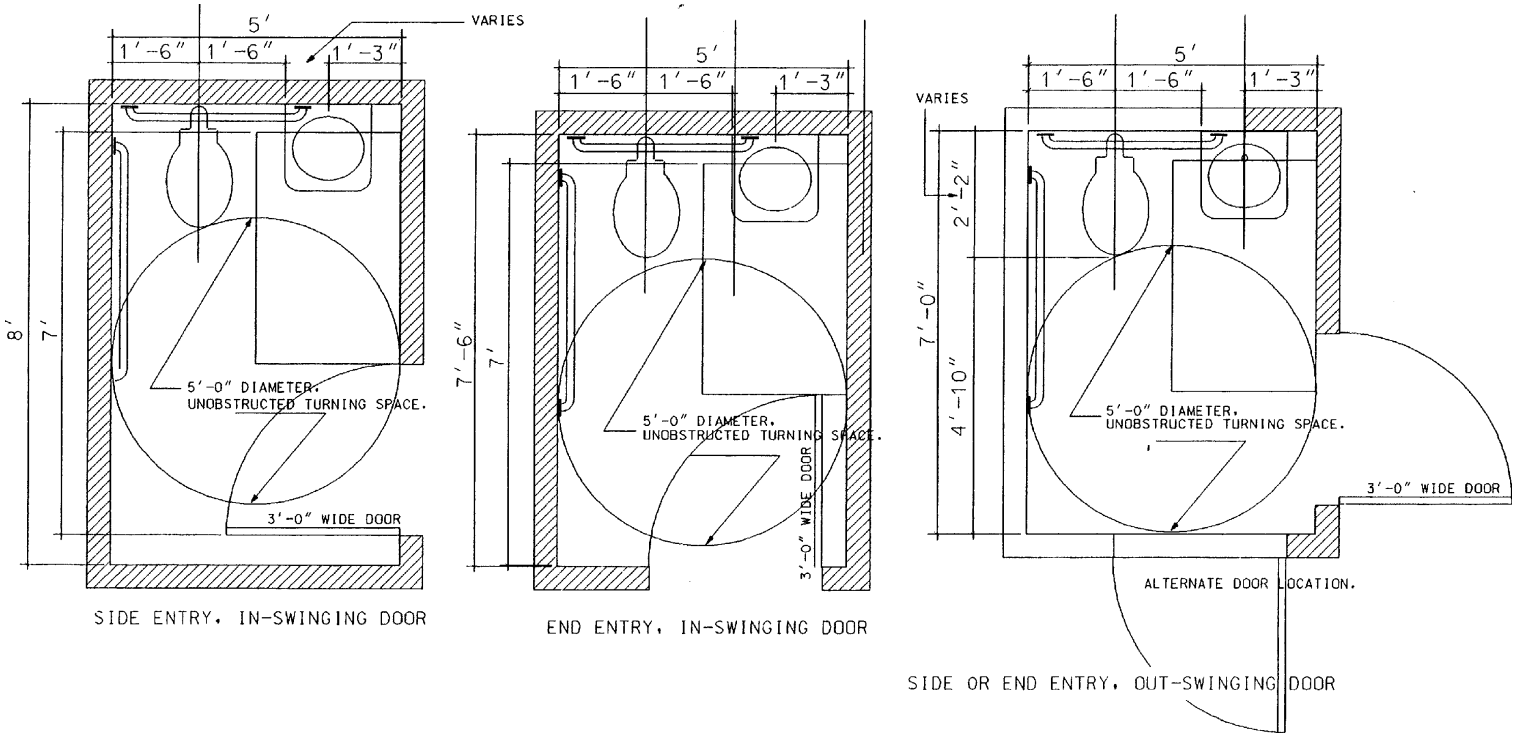
1) Provide an access aisle at least 60" wide and 20' (240") long adjacent and parallel to the vehicle pull-up space. (See illustration at right)
2) If curbs are present between the vehicle pull-up space and the access aisle, or between the access aisle and the accessible route, then a curb ramp must be provided.



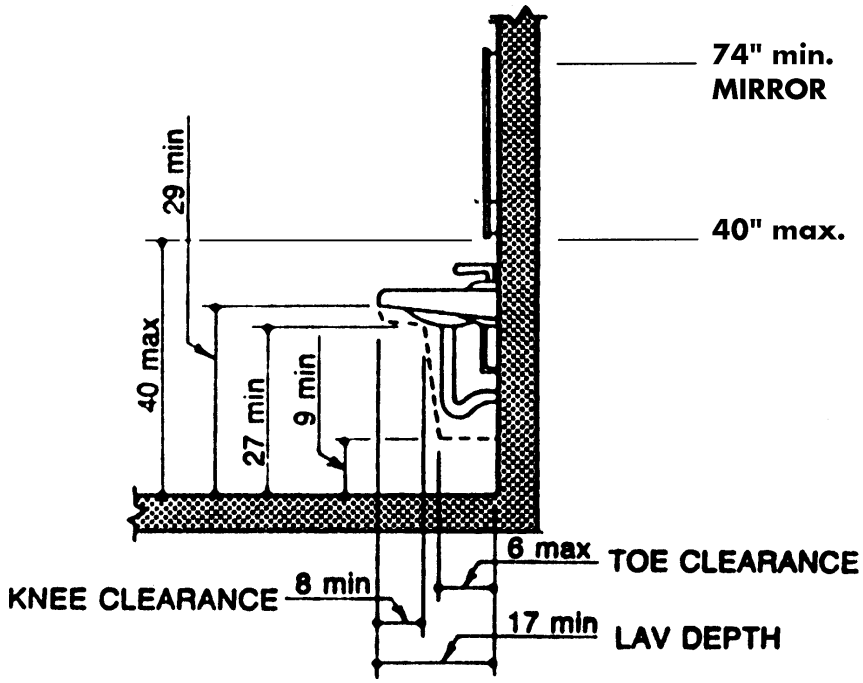
Access Aisle at Passenger Loading Zones

ITEM	REQUIREMENT
NUMBER	Each public and common use toilet facility shall be accessible. A minimum of one accessible water closet per restroom is required.
LOCATION	In multi-storied buildings, at least one restroom per floor shall be accessible. Horizontal distance to an accessible restroom should not exceed 250 feet.
ENTRY DOORS	32" clear width opening is required for access.
MANEUVERING SPACE	A 60" diameter or 36" wide "T" shaped clear floor space is required for maneuvering a wheelchair in a restroom. Space under an accessible lavatory may be included.
TOILET STALLS	**New Construction**  **Renovation** [When new construction requirements cannot be met, a TDLR variance must be requested and approved in advance] 
TOILET SEAT	17-19 inches high.
URINALS	17 inches high to elongated rim.

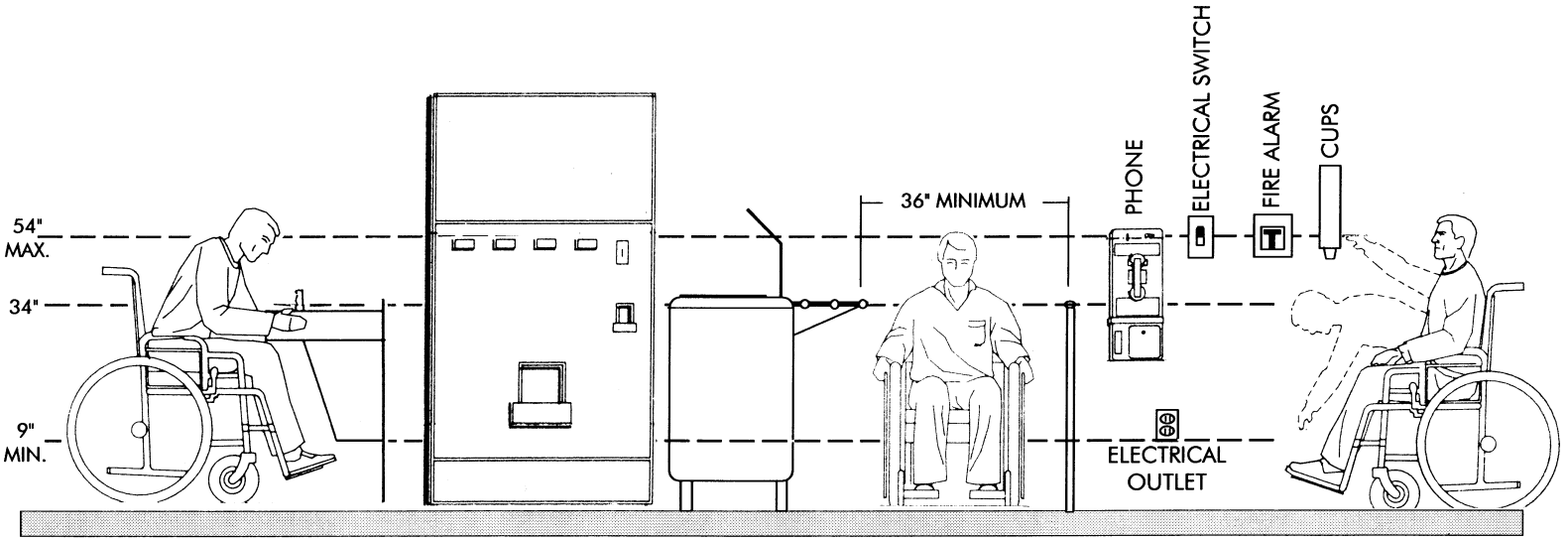
ITEM	REQUIREMENT
UNISEX/FAMILY/ SINGLE USER TOILET ROOMS	Guidelines allow the use of 'unisex' or 'single user' accessible toilet rooms when space limitations & technical infeasibility combine to prohibit modification of existing toilet room facilities. Unisex toilet facilities have also proven useful in new facilities to provide access for the wheelchair user and attendant.



ITEM	REQUIREMENT
GRAB BARS	Grab bars are required in all accessible toilet rooms and shall be mounted at 33-36 inches above the floor in the lengths and configurations indicated on pages 9 and 10. Grab bars shall support a minimum 250 lbs., have a 1.25 to 1.5 inch outside diameter and 1.5 inch clearance from wall.
LAVATORIES	29 inch undersink apron and 27 inch undersink bowl minimum clearance required. Other clearances as required (see illustration). Lever operated faucet handles preferred. Reach shall not exceed 20 inches for a frontal approach or 24 inches for a side approach.

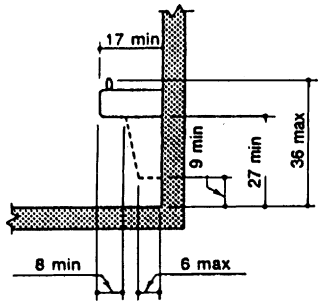


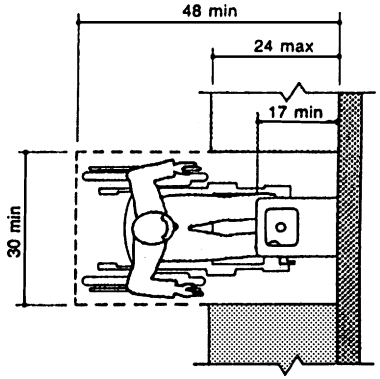
ITEM	REQUIREMENT
FIXTURES	40 inch height to bottom of mirrors or top of shelves. Mount dispensers at 48 inches maximum for frontal approach or 54 inches maximum for a side approach.

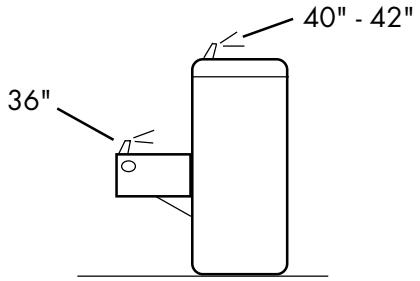


DRINKING FOUNTAINS

At least 50% of drinking fountain units provided on each floor level shall be accessible and shall comply with the following illustration. If only one drinking fountain on each floor then it shall have a hi/low characteristic. (Accessible to persons who use wheelchairs and to those who have difficulty bending or stooping.)

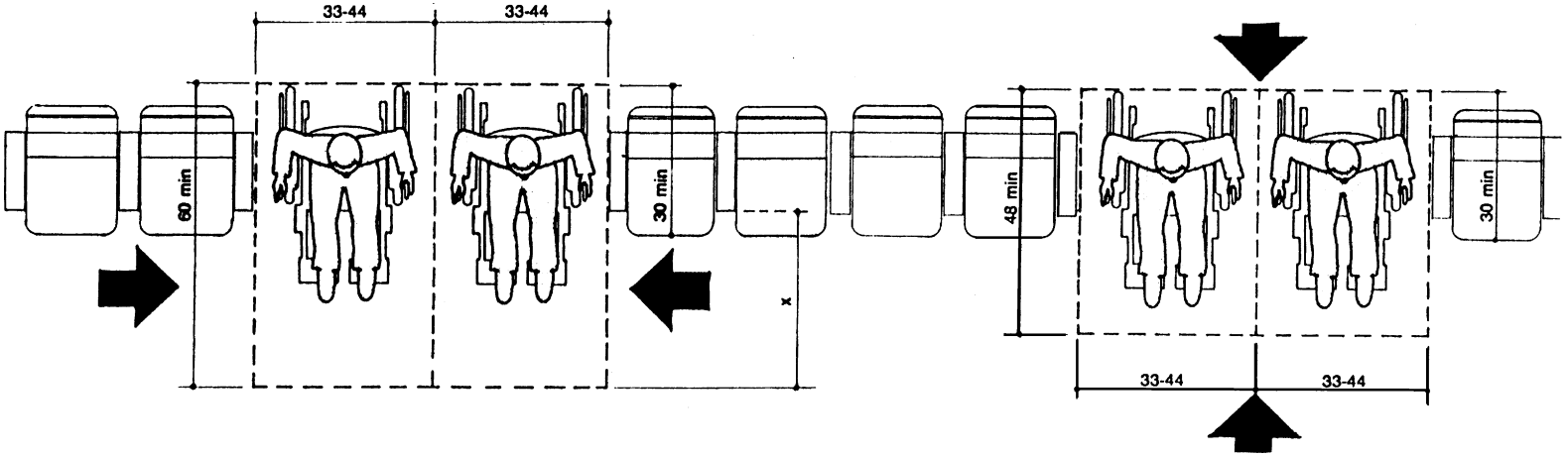






Hi/Lo Fountain

ITEM	REQUIREMENT
SEATING	Level, dispersed, accessible seating is required in all assembly areas. Each wheelchair seating location shall accommodate two people in wheelchairs and include regular seating for companions on either side. Wheelchair seating shall adjoin an accessible route that also serves as a means of egress in case of an emergency. Each wheelchair seating location shall provide lines of sight comparable to those for all viewing areas. The following illustration gives dimensional requirements for wheelchair seating locations.



NUMBER	The minimum number of seating locations for disabled persons using a wheelchair is given by the following table.

Capacity of Seating In Assembly Areas	Number of Required Wheelchair Locations
4 to 25	1
26 - 50	2
51 - 300	4
301 - 500	6
Over 500	6, plus 1 additional space for each total seating capacity increase of 100

PERFORMING AREAS	One percent of all fixed seats shall be aisle seats with no armrest on the aisle side. An accessible route shall connect wheelchair seating locations with performing areas; including stages, arena floors, gymnasium floors, and other types of performing or playing areas; and support areas such as dressing rooms and locker rooms.
ASSISTIVE LISTENING	Assistive listening devices and sign language interpreters for the hearing impaired audience shall be available upon request in assembly areas.

ITEM	REQUIREMENT	
	Ages: 4 thru 10 or 11 Grades: Pre-K thru 5 or 6	Ages: 11 thru 14 or 15 Grades: 6 thru 8 or 9
Reach Ranges		
Frontal Approach	42" max.	45" max.
Side Approach	48" max.	51" max
Ramps and Stairs		
Top of Handrail Gripping Surface	28" - 34"	30" - 34"
Elevators		
Car Control Floor Buttons		
Frontal Approach	42" max.	45" max.
Side Approach	48" max.	51" max.
Emergency Communication		
Highest Operable Part	42" max.	45" max.
Platform Lifts (Wheelchair Lifts)		
Controls/Operating mechanisms	28" - 42"	28" - 45"
Drinking Fountains and Water Coolers		
Frontal Approach		
Spout Height (to outlet)	32" max.	34" max.
Knee Clearance	26" min.	27" min.
Side Approach		
Spout Height (to outlet)	32" max.	34" max.
Water Closets		
Top of Seat	14" - 15"	15" - 17"
Grab Bars	28" - 30"	30" - 32"
Flush Control	42" max.	44" max.
Urinals		
Rim of Basin	14" max.	16" max.
Flush Control	42" max.	44" max.
Lavatories and Sinks		
Rim or Counter Surface	30" max.	32" max.
Knee clearance	26" min.	27" min.
To Faucets From Front Edge	18" max.	20" max.
Mirrors		
To Bottom of Reflective Surface	34" max.	37" max.

ITEM	REQUIREMENT	
	Ages: 4 thru 10 or 11 Grades: Pre-K thru 5 or 6	Ages: 11 thru 14 or 15 Grades: 6 thru 8 or 9
Bathtubs		
Top of Seat	14" - 15"	15" - 16"
Grab Bars	28" - 30"	30" - 32"
Shower Stalls		
Top of Seat	14" - 15"	15" - 16"
Grab Bars	28" - 30"	30" - 32"
Hand Shower Head Mounting		
Frontal Approach	42" max.	45" max.
Side Approach	48" max.	51" max.
Storage (Lockers, Shelfs, etc.)		
Frontal Approach	42" max.	45" max.
Side Approach		
Distance from wheelchair		
0" - 10"	48" max.	51" max.
10" - 21"	42" max.	45" max.
Controls and Operating Mechanisms		
Highest Operable Part		
Frontal Approach	42" max.	45" max.
Side Approach	48" max.	51" max.
Telephones		
Highest Operable Part		
Frontal Approach	42" max.	45" max.
Side Approach	48" max.	51" max.
Fixed or Built-in Seating and Tables, Reading and Study Areas, and Work Stations		
Height of Tables or Counters	27" - 30"	27" - 32"
Knee Clearances	26"	28"
Dressing and Fitting Rooms		
Top of Bench	14" - 15"	15" - 17"
Food Service Lines		
Top of Tray Slide	30" max.	32" max.

ITEM	REQUIREMENT
SIGNAGE	If accessible facilities are identified as such, then the international symbol of accessibility shall be used. International Symbol of Access (Display Conditions)  Symbol for Deaf Access (Assistive Listening Devices)  Telecommunication Device for the Deaf TTY  Symbol for Blind Access  Room numbers and names signage shall consist of color contrasting characters between 5/8 to 2 inches high, raised 1/32 inch minimum, and mounted alongside the door on the handle-side no more than 8 inches from door jamb and at a height of 60 inches above the floor.
TELEPHONES	If public telephones are provided, then at least one unit per floor shall be accessible. Mount at 54 inches maximum to controls for side approach or 48 inches maximum for frontal approach. Equip with volume control. Text telephones (TTY) shall be permanently affixed within or adjacent to the enclosure, or a portable TTY shall be available.
ALARMS	Any electronically controlled device used for emergency warning must be visible in addition to audible.
HAZARDOUS AREAS	Uniform warning textures shall be placed on floors and door handle surfaces to hazardous areas such as stairways. This can be done by adhering a rough material to the floor surface (36 inch minimum width) and door handle.

Action Plan Outline For Access Compliance ✔

1. **Become Knowledgeable:**
   Using this manual or another source, prepare a "good faith plan" for immediate barrier removal.

2. **Survey Existing Conditions:**
   Assemble a survey team including people with disabilities to assist in indentifying barriers and developing solutions. You will need site and floor plans for making notes, and a tape measure.

3. **Summarize The Results:**
   List all identified barriers and indicate the actual dimensions/conditions of each.

4. **Consider Possible Solutions:**
   Brainstorm ideas for barrier removal and determine probable costs for options. Decide which solutions best eliminate barriers at a reasonable cost. Consider practical alternatives.

5. **Prioritize Barrier Removal:**
   Priority One: Accessible entrances into the facility and path of travel to reach those entrances
   Priority Two: Access to Goods and Services
   Priority Three: Access to Restrooms
   Priority Four: Any other measures necessary to provide access

6. **Remove All Barriers Identified as "Readily Achievable":**
   A "Checklist for Readily Achievable Barrier Removal" is available through the Disability Access Office for use in completing a survey of potential architectural and communication barriers.

7. **Put a "Good Faith " Action Plan In Place:**
   It is critical to demonstrate a "good faith " effort which includes documentation of everything you have done and how you plan to address future compliance requirements.

8. **Utilize Dynamic Process For Continuing Accessibility:**
   Review your implementation plan each year to reevaluate whether more improvements have become readily achievable.

Notes/Updates